

U.S. Patent Application Serial No. 10/518,147  
Reply to Office Action dated October 4, 2006

RECEIVED  
CENTRAL FAX CENTER

APR 12 2007

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A cathode assembly for use in the refining of metals, comprising:  
  
a substantially ~~fat~~ flat deposition plate fixedly attached along an upper edge thereof to an elongate hanger bar thereby defining a connection;  
  
a protective cladding abutting said deposition plate and at least partially surrounding said hanger bar such that a cavity is defined in the region of said connection; and  
  
a curable corrosion resistant material filling said cavity.
2. (Currently Amended) The cathode assembly as recited in claim 1, wherein said deposition plate is attached to said hanger bar by means of at least one weld.
3. (Currently Amended) The cathode assembly as recited in claim 1, wherein said protective cladding is preformed.
4. (Currently Amended) The cathode assembly as recited in claim 1, wherein said corrosion resistant material is an epoxy resin.
5. (Currently Amended) The cathode assembly as recited in claim 1, wherein said deposition plate and said cladding are fabricated from stainless steel.

U.S. Patent Application Serial No. 10/518,147  
Reply to Office Action dated October 4, 2006

6. (Currently Amended) The cathode assembly as recited in claim 1, wherein said cladding is attached to said deposition plate by means of at least one weld.
7. (Currently Amended) The cathode assembly as recited in claim 1, wherein an inverted v-profile is machined in a lower edge of said deposition plate.
8. (Original) A method for fabricating a cathode for use in the refining of metals, said cathode being of the type comprising a deposition plate for electrodepositing metals, said method comprising the steps of:
- (a) providing a substantially flat deposition plate having an upper edge;
  - (b) fastening an elongate hanger bar on said upper edge of said deposition plate, thereby providing a deposition plate assembly;
  - (c) securing a protective cladding to said deposition plate assembly so as to substantially overlay the area of fastening between said hanger bar and said upper edge of said deposition plate, thereby defining a cavity between said cladding and said deposition plate assembly; and
  - (d) filling said cavity with a corrosion resistant material thereby providing a fabricated cathode.
9. (Original) The method for fabricating a cathode as in claim 8, wherein said fastening step includes welding said upper edge to said hanger bar.
10. (Original) The method for fabricating a cathode as in claim 8, wherein said filling step comprises boring at least one hole in said protective cladding and injecting a liquid phase of said

U.S. Patent Application Serial No. 10/518,147  
Reply to Office Action dated October 4, 2006

corrosion resistant material into said cavity, said corrosion resistant material subsequently hardening into a solid phase.

11. (Original) The method for fabricating a cathode as in claim 10, wherein said corrosion resistant material is an epoxy resin.
12. (Original) The method for fabricating a cathode as in claim 8, wherein said attaching step comprises welding said cladding to said deposition plate by means of at least one weld.